

## CIRM awards \$25 million to support spinal cord injury trial, \$37.7 million for basic stem cell science Posted: May 4, 2011

The Governing Board of the California Institute for Regenerative Medicine, the State Stem Cell Agency, approved a \$25 million award to support the first FDA-approved clinical trial based on cells derived from human embryonic stem cells. The award to Menlo Park-based Geron, Corp, will support the company's on-going early phase trial for people with spinal cord injury. This is the first time the agency, which was created by the passage of proposition 71 in 2004, has funded a human clinical trial testing a stem cell-derived therapy.

"Supporting the Geron trial is a landmark step for CIRM," said Robert Klein, CIRM chairman. "However, we must remember that there will be successes and interim failures as human trials proceed through the refinements necessary to achieve a successful human therapy. We need to be prepared to stand by the heroic patients and the companies as they face these challenges and solve the problems that stand in the way of the recovery of patients from paralysis. When the people of California voted for proposition 71 they did so with the hope of seeing new therapies for disabling diseases like Alzheimer's disease, Parkinson's disease, diabetes and other chronic diseases and injuries. By funding this trial, CIRM is taking a major step toward making that hope a reality."

The initial phase of the trial will include just a small number of people with recent spinal cord injuries who will receive injections of oligodendrocyte progenitor cells derived from embryonic stem cells into the site of the injury. In animal models, those cells mature into oligodendrocytes, which produce the insulating layer surrounding neurons. The initial phase of the three-year project is designed to test whether the cells are safe. Later phases will include different levels of spinal cord injury and will test increasing doses of the cells. One person has already received injections of the cells at a clinical trial site in Georgia. Stanford University Medical Center is another of the trial locations.

At the same meeting, the Governing Board approved 27 Basic Biology III Awards worth \$37.7 million. The awards to nine institutions will support research that leads to new insights in stem cell biology and disease origins. This work feeds the pipeline of new discoveries and also informs the work of research groups working on new disease therapies. The Basic Biology Awards are awarded on a recurring basis, with a total of 55 awards worth \$76.4 million funded to-date. The Basic Biology Award to Robb Maclellan at the University of California, Los Angeles includes a collaborator in Germany, who will receive up to \$750,000 in collaborative funding from the Federal Ministry of Education and Research (BMBF), the science ministry in Germany.

In addition to funding new awards, the Governing Board approved the concept for the next round of Early Translational Awards. These awards support work that takes basic scientific discoveries and establishes possible therapeutic candidates.

The Board was also introduced to the launch of a new pilot program to support high school students carrying out interdisciplinary work in California stem cell labs. These Creativity Awards will support 18 students who will be involved in projects that combine stem cell science with at least one added discipline including engineering, chemistry, social sciences, ethics, music or others.

"These Creativity Awards encourage smart young people in California to bring fresh ideas into the stem cell research field," said Alan Trounson, CIRM President. "We are not only supporting the next generation of stem cell scientists, we are promoting the kind of innovative thinking that leads to novel breakthroughs in science."

The board also approved a proposal to support banking and the derivation of new iPS cell lines for disease modeling and drug discovery, as was recommended in a November 2010 workshop on iPS cells (that workshop report is available here. CIRM will collaborate with the National Institute of Neurological Disorders and Stroke on an iPS cell repository for neurodegenerative diseases through a public-private-partnership coordinated through the Foundation for the National Institutes of Health. The current proposal is considered a first step to be followed by a proposal to come to the governing board this fall regarding an iPS cell repository that would include additional disease areas. The CIRM budget for the first project is expected to be \$150,000 per year for two years, while the NINDS budget for the series of partnerships they expect to create around the country is \$4.5 million in the current fiscal year.

## **Basic Blology III Awards**

Grant number	Name	Institution	Total Funds Requested
RB3-05100	Joanna Wysocka	Stanford University	\$1,425,600
RB3-05129	Joseph Wu	Stanford University	\$1,425,600
RB3-05103	Farah Sheikh	University of California, San Diego	\$1,341,955
RB3-05009	Eugene Yeo	University of California, San Diego	\$1,372,660
RB3-02161	Jiing-Kuan Yee	City Of Hope National Medical Center	\$1,268,868
RB3-05083	Kun Zhang	University of California, San Diego	\$1,382,140
RB3-02143	Binhai Zheng	University of California, San Diego	\$1,355,063
RB3-02222	Michael Rape	University of California, Berkeley	\$1,364,091
RB3-05022	Joel Gottesfeld	The Scripps Research Institute	\$1,755,861
RB3-05080	Kathrin Plath	University of California, Los Angeles	\$1,364,598
RB3-02266	Charles King	University of California, San Diego	\$1,313,649
RB3-02165	Shuo Lin	University of California, Los Angeles	\$1,382,400
RB3-02186	Kristin Baldwin	The Scripps Research Institute	\$1,755,864
RB3-05066	Michael Clarke	Stanford University	\$1,425,600
RB3-05041	Harold Bernstein	University of California, San Francisco	\$1,381,296
RB3-05217	Gay Crooks	University of California, Los Angeles	\$1,375.983
RB3-05020	John Murnane	University of California, San Francisco	\$1,074,355
RB3-05219	Deborah Spector	University of California, San Diego	\$1,372,660
RB3-05232	Song Li	University of California, Berkeley	\$1,341,064
RB3-02098	David Cheresh	University of California, San Diego	\$1,361,448
RB3-05086	Robb Maclellan	University of California, Los Angeles	\$1,181,306
RB3-05229	Anirvan Ghosh	University of California, San Diego	\$1,391,400
RB3-02209	Renee Reijo Pera	Stanford University	\$1,425,600
RB3-05174	Deepak Srivastava	The J. David Gladstone Institutes	\$1,708,560
RB3-02221	R. Jeremy Nichols	The Parkinson's Institute	\$1,482,822
RB3-05207	William Lowry	University of California, Los Angeles	\$1,354,230
RB3-02129	Yi Sun	University of California, Los Angeles	\$1,382,400
Total			\$37,767,073

 $A complete \ list of \ CIRM-funded \ institutions \ and \ funding \ levels \ is \ available \ here: \ http://www.cirm.ca.gov/InstitutionList$ 

About CIRM: CIRM was established in November 2004 with the passage of Proposition 71, the California Stem Cell Research and Cures

Act. The statewide ballot measure, which provided \$3 billion in funding for stem cell research at California universities and research institutions, was overwhelmingly approved by voters, and called for the establishment of an entity to make grants and provide loans for stem cell research, research facilities, and other vital research opportunities. A list of grants and loans awarded to date may be seen here: /grants

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